

REMARKS

The Office Action of October 23, 2006 has been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action.

I. STATUS OF THE CLAIMS

Claims 1-4, 6-14, 16-18, and 29 are pending in the application.

Independent claims 1 and 29, and dependent claims 2-4, 6-14, and 16-18 have been provisionally elected in response to the restriction requirement of June 21, 2006.

Dependent claims 5, 15, and 19 have been withdrawn from consideration in response to the restriction requirement but should be considered allowable if generic independent claim 1 is allowable. Claims 5, 15, and 19 depend, either directly or indirectly, upon independent claim 1.

Independent claims 20, 30, and 32, and dependent claims 21-28, 31, and 33 have been cancelled without prejudice in response to the restriction requirement. Applicants reserve the right to claim the subject matter of claims 20-28 and 30-33 in a divisional application.

Independent claims 1 and 29 have been amended to further define the invention. No new matter has been added. Support for the amendments can be found in Applicants' Specification, paragraphs 47, 48, and 51.

Claims 12 and 29 are objected to for informalities. Claims 12 and 29 have been amended to correct the informalities.

Claims 1-4, 6-14, 16-18, and 29 are rejected under 35 U.S.C. § 112.

Claims 1-3, 7, 17, 18, and 29 are rejected under 35 U.S.C. § 102(a) and 102(e) as being anticipated by Ravkin et al, United States Patent Number 6,908,737, published on July 10, 2003 (Ravkin), filed on October 18, 2002. It is submitted that there is a typographical error in the Office Action because Ravkin was filed on April 9, 2002, and published on January 9, 2003. Applicants respectfully point out that Ravkin was published within one year of Applicants' filing date, September 24, 2003. It is submitted that the rejection of

claims 1-3, 7, 17, 18, and 29 under 35 U.S.C. § 102(a) is improper because, according to MPEP § 2132.01, “when the reference is a U.S. patent published within the year prior to the application filing date, a 35 U.S.C. 102(e) rejection should be made.” Applicants reserve the right to swear behind Ravkin.

Dependent claims 4 and 6 are rejected under 35 U.S.C. § 102(a) and § 102(e) as being anticipated by Ravkin in light of Kolesar, Jr. et al., United States Patent Number 4,906,440, published March 6, 1990. It is submitted that the rejection of dependent claims 4 and 6 under 35 U.S.C. § 102(a) is improper for the reasons stated above with respect to claims 1-3, 7, 17, 18, and 29.

Claims 8-14 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ravkin in view of Tompkin et al., United States Patent Number 5,754,520, published on May 19, 1998 (Tompkin), filed on December 13, 1995.

Claims 1-13 and 29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of copending United States Patent Application Serial # 10/379,107 ('107).

Claims 14, 17, and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of '107 in view of Ravkin.

Claim 16 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of '107 in view of Tompkin.

II. INFORMATION DISCLOSURE STATEMENT

Applicants appreciate the Examiner's careful review and editing of the submitted Information Disclosure Statements.

On page 3, in paragraph 6, the Office Action states that the references on Sheets 1-3 of the Information Disclosure Statement of February 23, 2004, have not been considered because copies of the references have not been supplied. It is submitted that, under 37 C.F.R. § 1.98(d)(A), copies of the references are not required to be submitted if they were previously cited by or submitted to the Office in a parent application and were considered,

and if the parent application was properly cited in the submitted Information Disclosure Statement. Applicants respectfully refer to Sheet 9 of 9 of PTO Form 1449 filed with the present application on September 24, 2003, in which is cited the parent application, United States Patent Application Serial # 10/379,107 ('107). Applicants further respectfully refer to PTO Form 1449 associated with '107, Sheets 4-6, which was considered on February 2, 2004, in which Applicants have cited and Examiner has considered the references in question (on Sheets 1-3 of the Information Disclosure Statement of February 23, 2004). It is submitted that the Information Disclosure Statement as filed is complete and that the references in question should be considered.

III. REJECTION UNDER 35 U.S.C. §112

On pages 4-5, in paragraphs 9-11, claims 1-4, 6-14, and 16-18 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite because the term "means effectively associated" is vague and indefinite. Applicants have amended claim 1 to further define the invention. In particular, Applicants' claimed means associated with said at least one microbead particle for enabling or enhancing chemical conjugation is described at least in Applicants' Specification, paragraph 13.

IV. REJECTIONS UNDER 35 U.S.C. §102

On pages 5-7, in paragraphs 12-13, the Office Action states that claims 1, 2, 3, 7, 17, 18, and 29 are rejected under 35 U.S.C. § 102(a) and 102(e) as being anticipated by Ravkin.

On pages 7-8, in paragraph 14, the Office Action states that claims 4 and 6 are rejected under 35 U.S.C. § 102(a) and 102(e) as being anticipated by Ravkin in light of Kolesar.

Applicants respectfully point out that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (CAFC,

1987), M.P.E.P. § 2131. As provided by the remarks set forth below, clearly this is not the case with the present rejection of the claims.

Applicants have amended independent claims 1 and 29 to further define the invention. Support for the amendments can be found in Applicants' Specification, paragraphs 47, 48, and 51.

With respect to amended independent claims 1 and 29, it is submitted that Ravkin does not anticipate Applicants' claimed pattern that is physically marked into a digital data layer of the microbead particle to reveal or block a reflective, photoluminescent or absorbing pattern, where the digital data layer cooperates with a transducing layer of the microbead particle to produce a detectable signal that can be read as binary data because Ravkin states a system that "unlike a simple black and white code where there is simply a difference in intensity between each indicia, but no difference in spectra, the present invention provides for each different indicia to have a different spectral quality such as color" (Ravkin, col. 10, lines 25-28). Applicants' claimed binary data is composed of ones and zeros, whereas Ravkin specifically states an invention that produces a signal that must be read as spectral intensity, would require further conversion to realize binary data, and therefore could not be *read as binary data* as Applicants claim.

It is submitted that dependent claims 2-4, 6-14, 17, and 18 are patentable at least by virtue of their direct or indirect dependence upon amended independent claim 1 which Applicants believe to be allowable.

In summary, with respect to amended independent claims 1 and 29, and dependent claims 2-4, 6-14, 17, and 18 which depend, directly or indirectly, upon independent claims 1 and 29, for at least the reasons stated above, it is submitted that Ravkin does not anticipate Applicants' amended independent claims 1 and 29 and dependent claims 2-4, 6-14, 17, and 18 which depend, directly or indirectly, upon independent claims 1 and 29. Since Ravkin does not anticipate each and every element of Applicants' independent claims 1 and 29, and dependent claims 2-4, 6-14, 17, and 18 which depend, directly or indirectly, upon independent claims 1 and 29, either expressly or inherently, a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicants assert that amended independent claims 1 and 29, and dependent claims 2-4, 6-14, 17, and 18 which depend, directly or indirectly, upon

independent claim 1, are now in condition for allowance. Applicants respectfully request the withdrawal of rejections under 35 U.S.C. § 102(a) and 102(e) with regards to amended independent claims 1 and 29 and dependent claims 2-4, 6-14, 17, and 18 which depend, directly or indirectly, upon independent claim 1, for the reasons set forth above. Furthermore, it is submitted that a rejection under 35 U.S.C. § 103 of this claim would be inappropriate as well. Applicants' claimed invention is not an obvious extension of the use of Ravkin to meet Applicants' patentable limitations.

V. REJECTIONS UNDER 35 U.S.C. §103

On pages 8-12, in paragraphs 15-18, the Office Action states that claims 8-14 and 16 are rejection under 35 U.S.C. § 103(a) as being unpatentable over Ravkin in view of Tompkin.

With respect to dependent claims 8-14 and 16, it is submitted that the combination of Ravkin and Tompkin cannot make obvious Applicants' claimed invention because Ravkin and Tompkin do not address the same subject matter and therefore cannot be combined. Ravkin, in class 435/6, states a system in which probe molecules are attached to carriers to detect and quantify analytes, whereas Tompkin, in class 369/275.1, states a system for providing compact disks and similar optical data carriers having diffraction gratings. The present invention has novelty specifically because one of ordinary skill in the art would not seek to find improvements to analyte technology through use of compact disk technology. It is submitted that the Office Action has exercised impermissible hindsight in combining the two unrelated technologies of analyte detection of Ravkin and compact disk formatting of Tompkin, and for this reason, Ravkin and Tompkin, either in combination or separately, cannot make obvious Applicants' dependent claims 8-14 and 16.

With further reference to dependent claims 8-10, it is submitted that Ravkin and Tompkin cannot make obvious Applicants' claimed symmetric pattern capable of generating a diffractive image, or Applicants' claimed symmetrical pattern that comprises at least one unit cell on a microbead particle because (1) *Uniroyal v. Rudkin-Wiley*, 5 U.S.P.Q.2d 1434, 1438 (Fed. Cir. 1988) teaches that for prior art references to be combined to render obvious a subsequent invention under 35 U.S.C. § 103, there must be something in the prior art as a whole that suggests the desirability, and thus the obviousness, of making the combination, and that if the examiner cannot point to a teaching in the art that supports the combination or

modification, the rejection is unfounded, and (2) *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) teaches that it is impermissible to use the claims as a framework from which to pick and choose among individual references to recreate the claimed invention, and *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) teaches that the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. With respect to (1), it is submitted that neither Ravkin nor Tompkin suggests the desirability of Applicants' claimed symmetric pattern capable of generating a diffractive image, or Applicants' claimed symmetrical pattern that comprises at least one unit cell on a microbead particle because (a) although Ravkin states many variations in the shape and construction of probe molecules, Ravkin makes no reference to Applicants' claimed symmetric pattern capable of generating a diffractive image, and (b) although Tompkin states diffraction patterns, Tompkin provides only a compact disk as an example of an optical carrier having a diffraction pattern (Tompkin, col. 2, lines 63-67, col. 4, lines 16-24). Clearly Ravkin's probe molecules have no physical relationship to Tompkin's compact disks. With respect to (2), clearly there is no suggestion or motivation in either Ravkin or Tompkin to combine the compact disk technology of Tompkin with the analyte detection technology of Ravkin. For these reasons, it is submitted that Ravkin and Tompkin, either separately or in combination, cannot make obvious Applicants' claimed symmetrical pattern capable of generating a diffractive image, or Applicants' claimed symmetrical pattern that comprises at least one unit cell on a microbead particle.

VI. REJECTIONS UNDER THE DOCTRINE OF DOUBLE PATENTING

On pages 12-13, in paragraphs 19-20, the Office Action states that claims 1-13 and 29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of copending United States Patent Application # 10/379,107 ('107), entitled NEAR-FIELD AND FAR-FIELD ENCODING OF MICROBEADS FOR BIOASSAYS, filed on March 4, 2003. Applicants herein file a terminal disclaimer under 37 C.F.R. § 1.321(c) along with the appropriate fee.

On pages 13-14, in paragraph 20, the Office Action states that dependent claims 14, 17, and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of 107 in view of Ravkin. Applicants herein file a terminal disclaimer with respect to '107, and have previously argued that

dependent claims 14, 17, and 18 are patentable at least because of their dependence on amendment independent claim 1.

On page 15, in paragraph 20, the Office Action states that dependent claim 16 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of '107 in view of Tompkin. Applicants herein file a terminal disclaimer with respect to '107. Further, it is submitted that '107 and Tompkin cannot be combined for the same reasons stated above that Ravkin and Tompkin cannot be combined.

VII. CONCLUSION

Independent claims 1 and 29 are believed to be in condition for allowance. Dependent claims 2-4, 6-14, and 16-18 depend upon what is believed to be allowable independent claim 1, and are therefore also believed to be in condition for allowance. Claims 5, 15, and 19, which have been withdrawn, are also believed to be in condition for allowance by virtue of their dependence, either directly or indirectly, upon allowable independent claim 1.

Applicants respectfully urge the Examiner to find all claims presented in the present application in condition for allowance and pass the case to issue.

The Commissioner for Patents is authorized to charge the any fees, including the fee for the terminal disclaimer for '107, or credit overpayment, to Deposit Account No. 50-1078, Order No. 29830-107.

The following information is presented in the event that a call may be deemed desirable by the Examiner:

JACOB N. ERLICH (617) 345-3000

Respectfully submitted,
Daniel B. Roitman et al., Applicants

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By:


Jacob N. Erlich
Reg. No. 24,338
Attorney for Applicants

01096276